

# PATENT SPECIFICATION

(11)

1415798

1415798

- (21) Application No. 4751/73 (22) Filed 31 Jan. 1973  
 (31) Convention Application No. 49772 (32) Filed 31 Jan. 1972 in  
 (33) Brazil (BR)  
 (44) Complete Specification published 26 Nov. 1975  
 (51) INT CL<sup>7</sup> G11B 3/70  
 (52) Index at acceptance  
 G5R 25B2 25BY 25K1 25KY



## (54) APPARATUS FOR PRESENTING VARIOUS SOUNDS OF DIFFERING CHARACTER

(71) I, JOSE GERALDO MANGELLA DE OLIVEIRA, of 3, Washington Luiz Street, Guarulhos, Sao Paulo, Brazil, a Brazilian Citizen, do hereby declare the invention, for which I pray that a patent may be granted to me, and the method by which it is to be particularly described in and by the following statement:—

The present inventions has educational and didactic aims, particularly in the field of music.

To provide a complete musical education it is no doubt necessary that theoretical teaching should be complemented by practical examples. Starting from the musical first steps, the sounds of nature, and the musical scales, right up to the full appreciation of a symphony, the audible example must accompany the theoretical musical teaching.

But, notwithstanding the endeavour of the music teachers, this aim has not yet been attained. The results have so far been negative, in the absence of a practical, efficient, and economic system able to provide the indispensable audible complement to the theoretical explanation.

The present invention, so simple at first sight, during the course of this specification will be seen to be of the utmost importance not only from the point of view of manufacture but also for illustrating the technique of the sounds and of the instrumental individualization or of the source of origin.

The present invention is the result of observation and study carried on by me for a long time in the field of music teaching in several schools in Brazil. Actually, in the present situation of music teaching—essentially theoretical—it is extremely difficult for the teacher to keep the students' attention during a musical lesson.

One known form of apparatus for presenting various sounds of differing character comprises a single gramophone record having a number of distinct bands, each reproducing a sound of a given character. The present invention replaces this single record by a set of

records which is much more convenient to handle.

The present invention provides apparatus for presenting various sounds of different character, comprising a set of gramophone records of identical size disposed in a case from which they are removable individually, each record having a playing area approximately 5 centimeters in outer diameter and having a playing time of at most 30 seconds, each record having a peripheral tab or border and producing only one sound of a given character different from that of the sounds reproduced by the remaining records.

Preferably, the peripheral tab or border is provided for the reception of visible information.

The individual sounds can be recorded one or more times in the same records, and the recording can be made on one or both sides of the record. The invention permits the formation of a record-collection of sounds formed by records of small size but of the greatest importance in content, including the greatest variety of sounds, which can be easily selected in class to be heard by the student and duly identified, thus illustrating the theory and educating the student's ear to distinguish the delicate differences of sounds and instruments.

In the teaching of music it is not enough for instance, to categorize a sound by considering only its source of origin, because in such case the sound originated by a violin would always be considered to be the same, but it is necessary also to consider how the sound is generated, which is of the highest importance.

With the violin, different sounds can be attained by the friction of the bow on the strings or by plucking the strings (pizzicato). By means of the apparatus according to the invention, which can comprise isolated reproductions of each different violin sound we can reach the most exact details to obtain a perfect individualization of the sounds. These different sounds, separately and succes-

50

55

60

65

70

75

80

85

90

sively valued can be easily identified in their respective records.

Another example: the trumpet played without the mute has a characteristic sound that is quite different from the sound of the same trumpet when played with a mute.

This invention is also useful in the field of linguistic phonetics for the teaching of correct pronunciation. Under this aspect the sounds are classified into articulated sounds which corresponds to the letters and their juxtapositions in the formation of the words that differ from region to region. We are quite aware of the differences in phonetics existing between the English spoken in Great Britain and in the United States.

These small records, capable of methodical disposition, can — as with slides — promptly be individually selected in class and played to the students during the theoretical exposition. This indispensable aural illustration brings magnificent results.

The advantages offered by these small records could never be obtained with the use of traditional records — unquestionably impractical and expensive for the purpose of this invention: their use cannot be justified for the recording of one single sound even if this sound is successively repeated.

For the reproduction of one single sound, one or more times, it is enough to have a small record with a narrow recording band.

This record preferably has a playing speed of above 100 rev/min. With these small records the comparison between two, three, or more sounds is a matter of a couple of minutes because the duration of each record is at most 25 to 30 seconds.

Record-players specially designed for these records of a smaller size, can be manufactured, operated by transistors and batteries, so as to be portable.

In the drawings:—

Figure 1 shows a record 1 whose playing area is approximately five centimeters in outer diameter;

Figure 2 shows the same record in side view;

Figure 3 shows a record 2 now provided with a border 3 for the reception of visible

information, destined to make easier the handling of the record, its classification, and cataloging in cases.

Figure 4 shows the record 2 in side view.

This border 3 can be of any size and shape. In the drawings it is shown as generally square but for the purpose it serves it could be oval or round or have a simple handle or tab.

The set of records are kept in a case such as a small drawer, filing cabinet, or small suitcase, to facilitate carrying, handling, consultation, and so on.

#### WHAT I CLAIM IS:—

1. Apparatus for presenting various sounds of differing character, comprising a set of gramophone records of identical size disposed in a case from which they are removable individually, each record having a playing area approximately 5 centimeters in outer diameter and having a playing time of at most 30 seconds, each record having a peripheral tab or border and reproducing only one sound of a given character different from that of the sounds reproduced by the remaining records.

2. Apparatus as claimed in claim 1, in which the peripheral tab or border is provided for the reception of visible information.

3. Apparatus as claimed in claim 2, in which each record is substantially square.

4. Apparatus as claimed in any of claims 1 to 3, in which the single sound is recorded on both sides of the record.

5. Apparatus as claimed in any of claims 1 to 4, in which each record has a playing speed of above 100 rev/min.

6. Apparatus as claimed in claim 5, further comprising a record-player adapted to play a record at a speed above 100 rev/min.

7. Apparatus as claimed in claim 1, substantially as described herein with reference to the accompanying drawings.

MARKS & CLERK,  
Chartered Patent Agents,  
57 & 58 Lincoln's Inn Fields,  
London, WC2A 3LS,  
Agents for the applicant(s).

1415798

COMPLETE SPECIFICATION

1 SHEET

*This drawing is a reproduction of  
the Original on a reduced scale*

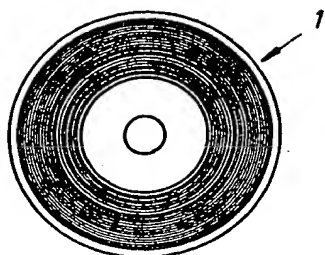


FIG. 1.



FIG. 2.

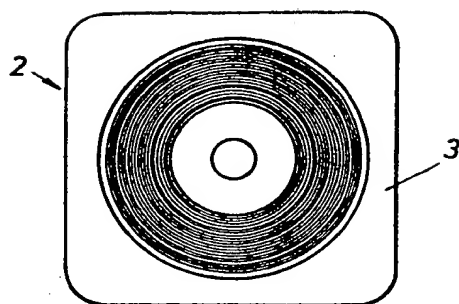


FIG. 3.

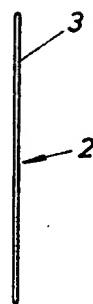


FIG. 4.

**This Page Blank (uspto)**